

**CASPIAN TERN FEASIBILITY ASSESSMENT
FIELD FORM**

Date: August 29, 2002 Observer(s): J. Dillon, J. Toman, N. Craft

Site Name: Un-named Island, Coos County, Oregon

Ownership: State of Oregon

● Location:

- Nearest City/Town: Empire, Oregon
- Bay/Estuary/Waterbody: Coos Bay
- Coordinates: Latitude N 43° 23' 06" Longitude W 124° 18' 09"
- Township, Range, Section: _____
- UTM Coordinates: Northing: 4804393.5 Easting: 394500.25 Zone: 10

● Size:

Total area of island or site: 0.4-0.8 ha (< 1-2 a)
Area of current/historical suitable habitat: None
Area of potential habitat: 0.2-0.4 ha (0.5-1.0 a)

● Distance from East Sand Island: 322 km (200 mi)

● Aerial photo obtained? Y or (N) Date/Source of Aerial Photo: _____

Site Description

● Type of site: Island Peninsula Lakeshore Rooftop Other

● Natural or Manmade? ★ Site Photographs (Y) or N Number Taken: 4 ground; 3 air

● Structures present (i.e. roads, buildings, power lines, piers, etc.)? None

● Vegetative communities (i.e. forb, grass, shrub, tree): Trees (30%), Shrubs (30%), grass (40%)

● Soil substrate (i.e. sand, gravel, silt, cobble, etc.): Sand/silt

● Site stability: Stable

● Topography and Site profile: Rises 1-4 feet above water level.

Comments: Area around island was too shallow to approach by boat; Stood on north shore;
Heavy fog during visit; Bar-bell shaped island.

Fish and Wildlife Resources

- Specific location, size, reproductive success of Caspian tern colony (if known): None

- Colonial Nesting Waterbirds:

Species Years of Occupancy Colony Size Distance from Caspian Terns

- Prey Base (describe general type and distance from colony): Salmonids, starry flounder, sardine, anchovy, smelt, shad

State or Federal listed fish species potential prey? ☒ Yes or No

Species: Coho salmon

- State or Federal listed wildlife/plants species associated with site: None on island

Management issues: _____

- Predators:

Avian (species; known occupancy/use of site): Bald eagle (North Bay, Millicoma)

Mammalian (species; known occupancy/access to site): Raccoon, mink

- Disturbance (i.e. livestock, human, etc.): Boaters, ATV users on mainland.

Comments: _____

Site Management

- Management History: (describe) As far as anyone knows, this is a natural island.

- Current Management (describe): None

- Management Potential (describe): The island is shaped like a bar-bell with high points on each end. Area between the island and the northwest shore is very shallow. May actually connect to mainland at low tide. Ownership of the island belongs to the State of Oregon. Clearing off one end of the island would create a <0.5 acre area but access by predators would be pretty easy. Large numbers of ATV users pass by the island less than 150 yards to the northwest. There may be a potential for dredging between the mainland and the island and using the material to enlarge the island.



Southwest end of the island.



Northeast end of the island.

**CASPIAN TERN FEASIBILITY ASSESSMENT
FIELD FORM**

Date: August 29, 2002 Observer(s): J. Dillon, J. Toman, N. Craft

Site Name: "South" Island, Coos Bay, Coos County, Oregon

Ownership: Port of Coos Bay, Coos Bay

● Location:

- Nearest City/Town: Coos Bay, Oregon
- Bay/Estuary/Waterbody: Coos Bay
- Coordinates: Latitude N 43° 22' 43" Longitude W 124° 12' 46"
- Township, Range, Section: _____
- UTM Coordinates: Northing: 4803574.5 Easting: 401757.28 Zone: 10

● Size:

Total area of island or site: 4.0-6.0 ha (< 10-15 a)
Area of current/historical suitable habitat: None
Area of potential habitat: 0.4-0.8 ha (1-2 a)

● Distance from East Sand Island: 320 km (199 mi)

● Aerial photo obtained? Y or (N) Date/Source of Aerial Photo: _____

Site Description

● Type of site: Island Peninsula Lakeshore Rooftop Other

● Natural or Manmade ★ Site Photographs? (Y) or N Number Taken: 3 ground; 1 air

● Structures present (i.e. roads, buildings, power lines, piers, etc.)? Channel marker on west edge on mudflat.

● Vegetative communities (i.e. forb, grass, shrub, tree): Trees (80%), Shrubs (10%), grass (10%)

● Soil substrate (i.e. sand, gravel, silt, cobble, etc.): Dredged material

● Site stability: Stable

● Topography and Site profile: Rises 5-10 feet above water level.

Comments: Directly across from the island is Coos Bay. On the 4th of July, fireworks are launched over the island.

Fish and Wildlife Resources

- Specific location, size, reproductive success of Caspian tern colony (if known): _____

- Colonial Nesting Waterbirds:

Species Years of Occupancy Colony Size Distance from Caspian Terns

- Prey Base (describe general type and distance from colony): Salmonids, starry flounder, sardine,
anchovy, smelt, shad

State or Federal listed fish species potential prey? ☒ Yes or No

Species: Coho salmon

- State or Federal listed wildlife/plants species associated with site: None on island

Management issues: _____

- Predators:

Avian (species; known occupancy/use of site): Bald eagle (North Bay, Millicoma)

Mammalian (species; known occupancy/access to site): Raccoon, mink

- Disturbance (i.e. livestock, human, etc. Boaters

Comments: _____

Site Management

- Management History (describe): Placement of dredge material (none since 1990).

- Current Management (describe): None

- Management Potential (describe): Heavy vegetation covers a large proportion of the island. Vegetation could be cleared back to create a nesting area a couple of acres in size. Ownership of the island belongs to the Corp of Engineers. Heavy boat traffic passes to the west of the island. Every 4th of July, Coos Bay sets off fireworks over the island from the old dock area. Island is nearly surrounded by a large expanse of tidal marsh. Due to the heavy vegetation, heavy boat traffic and fireworks, this area does not have a very high potential for Caspian tern use.



Picture taken from west side of island.



West side of island is toward the lower left corner.

**CASPIAN TERN FEASIBILITY ASSESSMENT
FIELD FORM**

Date: August 29, 2002 Observer(s): J. Dillon, J. Toman, N. Craft

Site Name: "Middle" Island, Coos Bay, Coos County Oregon

Ownership: Port of Coos Bay, Coos Bay

● Location:

- Nearest City/Town: Coos Bay, Oregon
- Bay/Estuary/Waterbody: Coos Bay
- Coordinates: Latitude N 43° 23' 31" Longitude W 124° 12' 57"
- Township, Range, Section: _____
- UTM Coordinates: Northing: 4805059.0 Easting: 401531.06 Zone: 10

● Size:

- Total area of island or site: 2.0-3.2 ha (< 5-8 a)
- Area of current/historical suitable habitat: None
- Area of potential habitat: 0.4-0.8 ha (1-2 a)

● Distance from East Sand Island: 320 km (199 mi)

● Aerial photo obtained? Y or (N) Date/Source of Aerial Photo: _____

Site Description

● Type of site: Island Peninsula Lakeshore Rooftop Other _____

● Natural or Manmade ★ Site Photographs? (Y) or N Number Taken: 3 ground; 1 air

● Structures present (i.e. roads, buildings, power lines, piers, etc.)? Channel marker on west edge on mudflat.

● Vegetative communities (i.e. forb, grass, shrub, tree): Trees (40%), Shrubs (20%), grass (40%)

● Soil substrate (i.e. sand, gravel, silt, cobble, etc.): Dredged material

● Site stability: Stable

● Topography and Site profile: Rises 10-15 feet above water level.

Comments: Directly across from the island is Coos Bay. On the 4th of July, fireworks are launched over the island.

Fish and Wildlife Resources

- Specific location, size, reproductive success of Caspian tern colony (if known): _____

- Colonial Nesting Waterbirds:
Species Years of Occupancy Colony Size Distance from Caspian Terns
- Prey Base (describe general type and distance from colony): Salmonids, starry flounder, sardine,
anchovy, smelt, shad

- State or Federal listed fish species potential prey? ☒ Yes or No
Species: Coho salmon
- State or Federal listed wildlife/plants species associated with site: None on island

- Management issues: _____
- Predators:
Avian (species; known occupancy/use of site): Bald eagle (North Bay, Millicoma)

Mammalian (species; known occupancy/access to site): Raccoon, mink

- Disturbance (i.e. livestock, human, etc.): Boaters

Comments: _____

Site Management

- Management History (describe): Placement of dredge material (none since 1990).

- Current Management (describe): None

- Management Potential (describe): Heavy vegetation covers a large proportion of the island. Vegetation could be cleared back to create a nesting area a couple of acres in size. Ownership of the island belongs to the Corp of Engineers. Heavy boat traffic passes to the west of the island. Every 4th of July, Coos Bay sets off fireworks over the island from the old dock area. Due to the heavy vegetation, heavy boat traffic and fireworks, this area does not have a very high potential for Caspian tern use.



Picture taken from west side of island.



West side of island is toward the lower left corner. (Photo taken July 19, 2002)

**CASPIAN TERN FEASIBILITY ASSESSMENT
FIELD FORM**

Date: August 29, 2002 Observer(s): J. Dillon, J. Toman, N. Craft

Site Name: "North" Island, Coos Bay, Coos County, Oregon

Ownership: Port of Coos Bay, Coos Bay

● Location:

- Nearest City/Town: Coos Bay, Oregon
- Bay/Estuary/Waterbody: Coos Bay
- Coordinates: Latitude N 43° 24' 10" Longitude W 124° 12' 57"
- Township, Range, Section: _____
- UTM Coordinates: Northing: 4806262.0 Easting: 401548.6 Zone: 10

● Size:

- Total area of island or site: 1.2-2.0 ha (< 3-5 a)
- Area of current/historical suitable habitat: None
- Area of potential habitat: 0.4-0.8 ha (1-2 a)

● Distance from East Sand Island: 319 km (198 mi)

● Aerial photo obtained? Y or (N) Date/Source of Aerial Photo: _____

Site Description

● Type of site: Island Peninsula Lakeshore Rooftop Other

● Natural or Manmade ★ Site Photographs? (Y) or N Number Taken: 1 ground; 2 air

● Structures present (i.e. roads, buildings, power lines, piers, etc.)? None

● Vegetative communities (i.e. forb, grass, shrub, tree): Trees (10%), Shrubs (30%), grass (60%)

● Soil substrate (i.e. sand, gravel, silt, cobble, etc.): dredged material

● Site stability: Stable

● Topography and Site profile: Rises 10-15 feet above water level.

Comments: Directly across from the island is Coos Bay. On the 4th of July, fireworks are
lunched over the island.

Fish and Wildlife Resources

- Specific location, size, reproductive success of Caspian tern colony (if known):

- Colonial Nesting Waterbirds:
Species Years of Occupancy Colony Size Distance from Caspian Terns
- Prey Base (describe general type and distance from colony): Salmonids, starry flounder, sardine,
anchovy, smelt, shad

- State or Federal listed fish species potential prey? ☒ Yes or No
Species: Coho salmon
- State or Federal listed wildlife/plants species associated with site: None on island

- Management issues: _____
- Predators:
Avian (species; known occupancy/use of site): Bald eagle (North Bay, Millicoma)

Mammalian (species; known occupancy/access to site): Raccoon, mink

- Disturbance (i.e. livestock, human, etc.): Boaters

Comments: _____

Site Management

- Management History (describe): Placement of dredge material (none since 1990)

- Current Management (describe): None

- Management Potential (describe): Heavy vegetation covers a large proportion of the island. Vegetation could be cleared back to create a nesting area a couple of acres in size. Ownership of the island belongs to the Corp of Engineers. Heavy boat traffic passes to the west of the island. Every 4th of July, Coos Bay sets off fireworks over the island from the old dock area. Due to the heavy vegetation, heavy boat traffic and fireworks, this area does not have a very high potential for Caspian tern use.

“North” Island, Coos Bay, Oregon

Photo taken August 29, 2002



Northwest end of island.



North end of the island.

**CASPIAN TERN FEASIBILITY ASSESSMENT
FIELD FORM**

Date: August 29, 2002 Observer(s): J. Dillon, J. Toman, N. Craft

Site Name: Un-named Island, Umpqua River Estuary, Douglas County, Oregon
Ownership: State of Oregon

● Location:

- Nearest City/Town: Winchester Bay, Oregon
- Bay/Estuary/Waterbody: Umpqua River Estuary
- Coordinates: Latitude N 43° 43' 08" Longitude W 124° 09' 48"
- Township, Range, Section: _____
- UTM Coordinates: Northing: 4841308.5 Easting: 406291.5 Zone: 10

● Size:

Total area of island or site: 3.2-4.8 ha (< 8-12 a)
Area of current/historical suitable habitat: None
Area of potential habitat: 0.8-1.2 ha (2-3 a)

- Distance from East Sand Island: 283 km (176 mi)
- Aerial photo obtained? Y or (N) Date/Source of Aerial Photo: _____

Site Description

- Type of site: Island Peninsula Lakeshore Rooftop Other
- Natural or Manmade? ★ Site Photographs? (Y) or N Number Taken: 9 ground; 2 air
- Structures present (i.e. roads, buildings, power lines, piers, etc.)? None
- Vegetative communities (i.e. forb, grass, shrub, tree): Trees (40%), shrubs (20%), grass (40%);
most of the trees are ringed around the edge of the island.
- Soil substrate (i.e. sand, gravel, silt, cobble, etc.): Sand/silt
- Site stability: Stable
- Topography and Site profile: Rises 1-8 feet above water level.

Comments: This island is part of a 89 ha (220 a) tax lot owned by the State of Oregon. A rough estimate of island acreage at the low tide mark is 12.3 ha (30.5 a) (Douglas County Planning Office, Coastal Planning, 541-440-4289).

Fish and Wildlife Resources

- Specific location, size, reproductive success of Caspian tern colony (if known): _____

- Colonial Nesting Waterbirds:
Species Years of Occupancy Colony Size Distance from Caspian Terns

- Prey Base (describe general type and distance from colony): Salmonids, starry flounder, sardine, anchovy, smelt, shad

- State or Federal listed fish species potential prey? Yes or No
 Species: Coho salmon

- State or Federal listed wildlife/plants species associated with site: None on island

- Management issues: _____

- Predators:
 Avian (species; known occupancy/use of site): Bald eagle

- Mammalian (species; known occupancy/access to site): Raccoon

- Disturbance (i.e. livestock, human, etc.): Boaters, campers?

Comments: _____

Site Management

- Management History (describe): Believed to be a natural island

- Current Management (describe): None

- Management Potential (describe): There has been no previous Caspian tern use of this island. This area has a high potential for development for Caspian tern use. The island is generally ringed by shorepine (lodgepole) and Sitka spruce. The center of the island and the eastern edge are comprised of a few scattered trees but mostly grass. Although people believe the island is natural, it appears that the island was ringed in an earthen berm and material was left in piles in the center. This island could easily be cleared of vegetation to form a Caspian tern nesting site. The Pacific ocean is due west less than 1.5 miles. This island is within the saltwater influence and most likely below the area where salmon smolts would go through the smoltification process. There is a water channel between the island and the mainland that may be filling with drifting sand from dunes to the north. Ownership of the island belongs to the State of Oregon.

**Un-named Island, Umpqua River Estuary,
Winchester, Oregon**

Photo taken July 19, 2002



Aerial photo of the island from southeast side.



Yellow "x" and arrow in top photo marks location and direction of bottom photo.

**CASPIAN TERN FEASIBILITY ASSESSMENT
FIELD FORM**

Date: August 29, 2002 Observer(s): J. Dillon, J. Toman, N. Craft

Site Name: Steamboat Island, Umpqua River Estuary, Douglas County, Oregon

Ownership: Port of Umpqua, Reedsport

● Location:

- Nearest City/Town: Reedsport, Oregon
- Bay/Estuary/Waterbody: Umpqua River Estuary
- Coordinates: Latitude N 43° 44' 22" Longitude W 124° 07' 35"
- Township, Range, Section: _____
- UTM Coordinates: Northing: 4843550.5 Easting: 409298.28 Zone: 10

● Size:

Total area of island or site: 1.2-2.0 ha (< 3-5 a)
Area of current/historical suitable habitat: None
Area of potential habitat: 0.4-0.8 ha (1-2 a)

● Distance from East Sand Island: 282 km (175 mi)

● Aerial photo obtained? Y or (N) Date/Source of Aerial Photo: _____

Site Description

● Type of site: Island Peninsula Lakeshore Rooftop Other

● Natural or Manmade? ★ Site Photographs? (Y) or N Number Taken: 2 ground; 4 air

● Structures present (i.e. roads, buildings, power lines, piers, etc.)? None

● Vegetative communities (i.e. forb, grass, shrub, tree): Heavy scotch broom, blackberry, alder

● Soil substrate (i.e. sand, gravel, silt, cobble, etc.): Sand/silt

● Site stability: Stable

● Topography and Site profile: Rises 6-10 feet above water level.

Comments: This area is the north end of the island. This area is fairly level but 6+ feet above water level. "Old growth" scotch broom is starting to fall apart. The island has been grazed by sheep in the past.

Fish and Wildlife Resources

- Specific location, size, reproductive success of Caspian tern colony (if known): _____

- Colonial Nesting Waterbirds:

Species Years of Occupancy Colony Size Distance from Caspian Terns

- Prey Base (describe general type and distance from colony): Salmonids, starry flounder, sardine,
anchovy, smelt, shad

State or Federal listed fish species potential prey? ☒ Yes or No

Species: Coho salmon

- State or Federal listed wildlife/plants species associated with site: None on island

Management issues: _____

- Predators:

Avian (species; known occupancy/use of site): Bald eagle

Mammalian (species; known occupancy/access to site): Raccoon

- Disturbance (i.e. livestock, human, etc.): Boaters, livestock (sheep in past but unknown today)

Comments: _____

Site Management

- Management History (describe): Sheep grazing.

- Current Management (describe): Unknown

- Management Potential (describe): There has been no previous Caspian tern use of this island. Heavy vegetation covers the north end of the island. Vegetation could be cleared back to create a nesting area a couple of acres in size. Ownership of the island belongs to the Corps of Engineers? Overall size of the island is 20+ acres but much of this is tidally influenced. The island is directly across from the now closed timber mill.

**Steamboat Island, Umpqua River Estuary
Reedsport, Oregon**

Photos taken July 19, 2002



Picture taken from west side of island.



West side of island is toward the lower left corner.

**CASPIAN TERN FEASIBILITY ASSESSMENT
FIELD FORM**

Date: August 30, 2002 Observer(s): J. Dillon

Site Name: Fern Ridge Reservoir, Lane County, Oregon

Ownership: Department of Defense, U.S. Army Corp of Engineers

● Location:

- Nearest City/Town: Eugene, Oregon
- Bay/Estuary/Waterbody: Fern Ridge Reservoir
- Coordinates: Latitude N 44° 04' 14" Longitude W 123° 16' 01"
- Township, Range, Section: _____
- UTM Coordinates: Northing: 4879744.0 Easting: 478623.3 Zone: 10

● Size:

Total area of island or site: Proposed plan
Area of current/historical suitable habitat: None
Area of potential habitat: Proposed 0.4 ha (1 a) island

● Distance from East Sand Island: 249 km (155 mi)

● Aerial photo obtained? Y or (N) Date/Source of Aerial Photo: _____

Site Description

● Type of site: (Island) Peninsula Lakeshore Rooftop (Other) Yet to be made

● Natural or (Manmade)? ★ Site Photographs? (Y) or N Number Taken: 3 ground; 3 air

● Structures present (i.e. roads, buildings, power lines, piers, etc.)? _____

● Vegetative communities (i.e. forb, grass, shrub, tree): Freshwater marsh?

● Soil substrate (i.e. sand, gravel, silt, cobble, etc.): Would be comprised of quarry waste, riprap, and sand.

● Site stability: _____

● Topography and Site profile: -----

Comments: Information taken from a conceptual draft dated May 3, 2000 by the Corps of Engineers.

Fish and Wildlife Resources

- Specific location, size, reproductive success of Caspian tern colony (if known):

- Colonial Nesting Waterbirds:

Species Years of Occupancy Colony Size Distance from Caspian Terns

- Prey Base (describe general type and distance from colony): Carp, bullhead catfish, largemouth bass,
Black and white crappie, bluegill

State or Federal listed fish species potential prey? ☒ Yes or No
Species: Chinook salmon and steelhead

- State or Federal listed wildlife/plants species associated with site: None

Management issues: _____

- Predators:

Avian (species; known occupancy/use of site): Bald eagle ?

Mammalian (species; known occupancy/access to site): Raccoon, coyote

- Disturbance (i.e. livestock, human, etc.): Boaters, fishermen

Comments: Salmonids are located ~9 miles to the east.

Site Management

- Management History (describe): Nothing has been done to date

- Current Management (describe): None

- Management Potential (describe): Caspian terns use the reservoir during migration. No nesting habitat exist at this time. If the Corps creates an island, the main prey items would be centrarchids but salmonids occur in the Willamette and McKenzie rivers to the east. Little boat traffic reaches this area and most of this is fishermen. Most of this area is shallow water. Ownership of the area belongs to the Corp of Engineers. A copy of the proposal is in the file with a cost estimate.



Area of proposed island development.



Aerial of Fern Ridge Reservoir (Yellow “x” marks location of top photo).

**CASPIAN TERN SITE FEASIBILITY ASSESSMENT
FIELD FORM**

Date: July 16, 2002 Observer(s): N. Seto, Chris Carey

Site Name: Pelican Lake (2 islands with no name)/Crump Lake, Lake County, Oregon
Ownership: Private (O'Keeffe and others) and State of Oregon

● Location:

- Nearest City/Town: Adel, Oregon
- Bay/Estuary/Waterbody: Warner Basin
- Coordinates: Latitude N 42° 12' 07.7" Longitude W 119° 53' 38.2" (Pelican Lake)
- Township, Range, Section: _____
- UTM Coordinates: Northing: 4676253.5 Easting: 261084.08 Zone: 11

● Size:

Total area of island or site: < 0.4 ha (< 1 a) (2 islands in Pelican Lake; islands underwater in Crump Lake)
Area of current historical suitable habitat: ~0.1 ha (0.25 a)
Area of potential habitat: ~0.1 ha (0.25 a)

- Distance from East Sand Island: ~460 km (286 mi)
- Aerial photo obtained? Y or (N) Date/Source of Aerial Photo: _____

Site Description (for Pelican Lake Islands only)

- Type of site: Island Peninsula Lakeshore Rooftop Other _____
- Natural or Manmade? ★ Site Photographs? (Y) or N Number Taken: 5
- Structures present (i.e. roads, buildings, power lines, piers, etc.): None
- Vegetative communities (i.e. forb, grass, shrub, tree): Shrubs, primarily greasewood
- Soil substrate (i.e. sand, gravel, silt, cobble, etc.): Compacted lakebed sediment
- Site stability: Semi-stable, shoreline stabilized in early 1990's to slow down erosion that was occurring (caused by wave, ice, and wind action).
- Topography and Site profile: relatively flat, with a rise of only 3 -4 feet.

Comments: The two islands were probably one island historically. Caspian terns do not regularly nest on these islands. The historic colony nested on islands in Crump Lake. They are observed nesting in Pelican Lake when the islands in Crump Lake are covered by high water levels. Roosting birds were observed at the northern spit of the south island in Pelican Lake during this site visit. Water levels were high in Crump Lake and no island was visible. A small, sandy high spot in the lake was visible and 8-9 adult and young Caspian terns were observed loafing on the sand.

Fish and Wildlife Resources

- Specific location, size, reproductive success of Caspian tern colony (if known): Unknown for 2002 because not surveyed.

- Colonial Nesting Waterbirds:

<u>Species</u>	<u>Years of Occupancy</u>	<u>Colony Size</u>	<u>Distance from Caspian Terns</u>
California Gulls	??	??	Adjacent
Am. White Pelicans	??	??	Adjacent
Great Blue Herons	??	??	Adjacent

- Prey Base (describe general type and distance from colony): Tui chub, Warner Basin red-band trout, Warner sucker, large-mouthed bass, croppie, brown bowhead

State or Federal listed fish species potential prey? ☒ Yes or No

Species: Warner sucker

- State or Federal listed wildlife/plants species associated with site: None

Management issues: None

- Predators:

Avian (species; known occupancy/use of site): Gulls, possibly Peregrine Falcon (was reintroduced several years ago, but do not know whether pair established territory)

Mammalian (species; known occupancy/access to site): Coyotes

- Disturbance (i.e. livestock, human, etc.): The island are located 75 m from the shoreline. Its privately owned and thus not open to the public. However, the amount of activity on the island by the landowner is unknown. Some hunting does occur in the area and grazing is allowed to the shoreline.

Site Management

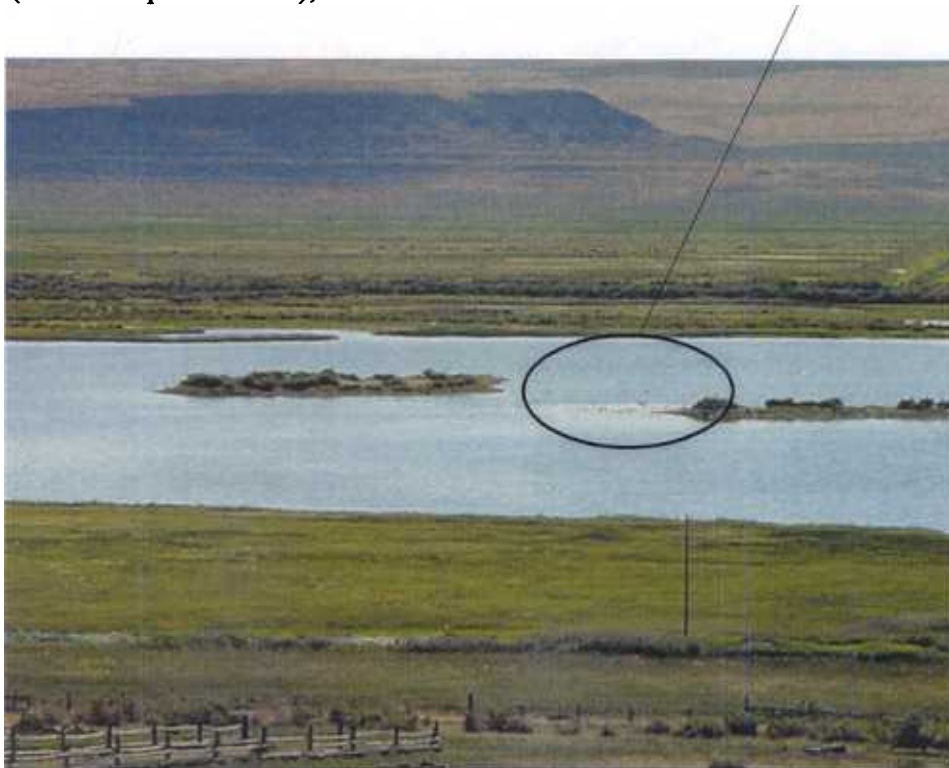
- Management History (describe): Very little management; rubble was added along the shoreline in the early 1990s to stabilize the island.

- Current Management (describe): No management activities known.

- Management Potential: This site is highly variable and heavily dependent on the drought and flood cycles of Pelican Lake and adjacent Crump Lake. No management actions are possible because there is no control over lake water levels. Thus, this site has low potential as stable, high quality Caspian tern nesting habitat. Instead, this site serves as an alternative nesting site for the birds that nest on islands in Crump Lake when high water levels occur and the islands are flooded. A larger open and sandy area can be provided by removing some of the vegetation adjacent to the current sandy spit located on the northern tip of th south island.



Pelican Lake with view of both islands, above and possible nesting area (northern spit of island), below.



**CASPIAN TERN SITE FEASIBILITY ASSESSMENT
FIELD FORM**

Date: N/A Observer(s): Phone con. with Chris Carey (Oregon Dept. of Fish and Wildlife
Site Name: Summer Lake, Lake County, Oregon
Ownership: Oregon State

● Location:

- Nearest City/Town: Summer Lake, Oregon
- Bay/Estuary/Waterbody: Summer Lake
- Coordinates: Latitude N 42° 70' 00" Longitude W 120° 46' 00"
- Township, Range, Section: _____
- UTM Coordinates: Northing: 4781744.5 Easting: 681545.25 Zone: 10

● Size:

Total area of island or site: 2 - 4 ha (5-10 a)
Area of current historical suitable habitat: <2 - 4 ha (<5-10 a)
Area of potential habitat: <2 - 4 ha (<5-10 a)

- Distance from East Sand Island: ~ 452 km (281 mi)
- Aerial photo obtained? Y or (N) Date/Source of Aerial Photo: _____

Site Description

- Type of site: Island Peninsula Lakeshore Rooftop Other _____
- Natural or Manmade? ★ Site Photographs? Y or (N) Number Taken: _____
- Structures present (i.e. roads, buildings, power lines, piers, etc.)? None
- Vegetative communities (i.e. forb, grass, shrub, tree): Saltgrass and other grass and forb species.
Large portion of the island are devoid of vegetation.
- Soil substrate (i.e. sand, gravel, silt, cobble, etc.): Silty soils with a few small boulders.
- Site stability: Stable, but in low water years, the island becomes connected to the
shoreline. In high water years, the island is mostly covered.
- Topography and Site profile: Relatively flat, with a rise of only 2 -3 feet on the southwest
side.

Comments: One pair of Caspian terns attempted to nest on one of the managed impoundments,
north of the traditional site in 2002 but failed.

Fish and Wildlife Resources

- Specific location, size, reproductive success of Caspian tern colony (if known): ~ 5 pairs,
possible juvenile observed late in summer

- Colonial Nesting Waterbirds:

<u>Species</u>	<u>Years of Occupancy</u>	<u>Colony Size</u>	<u>Distance from Caspian Terns</u>
California gulls	~1980s	Hundreds	Adjacent
Ring-billed gulls	~1980s	~1,500	Adjacent
Am. white pelicans	??	8	Adjacent
Double-crested cormorants??		60	Adjacent

- Prey Base (describe general type and distance from colony): Tui chub, fingerling trout,

State or Federal listed fish species potential prey? Yes or No

Species: Warner sucker in northend of State Wildlife Area, but most likely not eaten by terns.

- State or Federal listed wildlife/plants species associated with site: None

Management issues: None

- Predators:

Avian (species; known occupancy/use of site): Gulls, raven

Mammalian (species; known occupancy/access to site): Coyote, racoon, mink, long-tailed weasel, badger and bobcat have been detected in the vicinity of the island and have easy access in low water years.

- Disturbance (i.e. livestock, human, etc.): Very minimal. Vehicle access (to within 1 mile of the island) is restricted during the breeding season; foot access to the nesting island is not prohibited but rarely occurs.

Site Management

- Management History (describe): No management.

- Current Management (describe): No management.

- Management Potential: This site is affected by water levels that fluctuate (sometimes very dramatically) dependent on weather conditions and is also influenced by the use of Ana River water by the Summer Lake Irrigation District and Summer Lake Wildlife Area. This site is also limited by the size of the island. Thus, this site has low potential as stable, high quality Caspian Tern nesting habitat.

**CASPIAN TERN SITE FEASIBILITY ASSESSMENT
FIELD FORM**

Date: July 16, 2002 Observer(s): Rick Roy meeting with N. Seto

Site Name: Tern Island, Malheur Lake, Harney County, Oregon
Ownership: U.S. Fish and Wildlife Service

- Location:
 - Nearest City/Town: Burns, Oregon
 - Bay/Estuary/Waterbody: Malheur Lake
 - Coordinates: Latitude ~ N43° 20' 00" Longitude ~ W118° 40' 05" (estimated on map)
 - Township, Range, Section: _____
 - UTM Coordinates: Northing: 4799183 Easting: 364775.9 Zone 11
- Size:
 - Total area of island or site: ~ 6 ha (~15 a)
 - Area of current historical suitable habitat: 1.2 ha (3 a)
 - Area of potential habitat: Variable
- Distance from East Sand Island: ~511 km (318 mi)
- Aerial photo obtained? Y or (N) Date/Source of Aerial Photo: _____

Site Description

- Type of site: Island Peninsula Lakeshore Rooftop Other
- Natural or Manmade? ★ Site Photographs? (Y) or N Number Taken: 1 (from Refuge)
- Structures present (i.e. roads, buildings, power lines, piers, etc.)? None
- Vegetative communities (i.e. forb, grass, shrub, tree): Pepperweed
- Soil substrate (i.e. sand, gravel, silt, cobble, etc.): Sand, silt
- Site stability: Stable, island exposure depends on lake water levels. If water levels are low, island is connected to lake shoreline.
- Topography and Site profile: Flat with a rise of 2 feet. Terns nested in sandy soils against low ridges of sand on the northern tip of island (highest part of island).

Comments: Island first exposed in 1989; terns first nested on island (northern end) in 1990.
Lake was dry and island was connected to shoreline on day of site visit.

Fish and Wildlife Resources

- Specific location, size, reproductive success of Caspian tern colony (if known): Adult birds were observed along the southern shoreline (not near Tern Island) but no nesting was confirmed in 2002. Lake almost completely dry and island was connected to lake shoreline by July.
- Colonial Nesting Waterbirds:

<u>Species</u>	<u>Years of Occupancy</u>	<u>Colony Size</u>	<u>Distance from Caspian Terns</u>
- Prey Base (describe general type and distance from colony): Carp, red-band trout, red-sided shiner, tui chub. Since small size classes are necessary, prey availability is heavily dependent on the drought and flood cycle (small prey are not available during all years)
 State or Federal listed fish species potential prey? Yes or No
 Species: _____
- State or Federal listed wildlife/plants species associated with site: None
- Management issues: _____
- Predators:

Avian (species; known occupancy/use of site): Gulls

Mammalian (species; known occupancy/access to site): Coyote when island connected to shoreline.
- Disturbance (i.e. livestock, human, etc.): This island is within the Refuge boundaries and off limits to the public. Refuge activities that occur on the island include colonial waterbird and archaeological surveys.

Site Management

- Management History (describe): No management.
- Current Management (describe): No management.
- Management Potential: This site is highly variable and heavily dependent on the drought and flood cycles of the lake. Water levels within the lake not only affect island exposure (too much or too little) but also Caspian tern food resources. No management actions are possible because the Refuge has no control over lake water levels. Thus, this site has low potential as stable, high quality Caspian tern nesting habitat. Instead, this site serves as opportunistic nesting area during good water levels.

Tern Island, Malheur Lake, Oregon

Photo taken 1990 by Refuge



North end of island, historic Caspian tern nesting area.

**CASPIAN TERN FEASIBILITY ASSESSMENT
FIELD FORM**

Date: June 18, 2002 Observer(s): B. Henry via phone call with J. Dillon

Site Name: Anaho Island National Wildlife Refuge, Washoe County, Nevada
Ownership: Department of Interior, U.S. Fish and Wildlife Service

● Location:

- Nearest City/Town: Sutcliffe, Nevada
- Bay/Estuary/Waterbody: Pyramid Lake
- Coordinates: Latitude N 39° 57' 12" Longitude W 119° 30' 48"
- Township, Range, Section: _____
- GPS Coordinates: Northing: 4425603.0 Easting: 285304.2

● Size:

Total area of Island or site: 303.5 ha (750 a)
Area of current historical suitable habitat: 100-200 ha (250-500 a)
Area of potential habitat: Same as above

- Distance from East Sand Island: 790 km (490 mi)
- Aerial photo obtained? Y or (N) Date/Source of Aerial Photo: _____

Site Description

- Type of site: Island Peninsula Lakeshore Rooftop Other _____

- Natural or Manmade? ★ Site Photographs? (Y) or N Number Taken: 1

- Structures present (i.e. roads, buildings, power lines, piers, etc.)? None in historical or potential sites

- Vegetative communities (i.e. forb, grass, shrub, tree): Greasewood, shadscale, salt bush, cheatgrass, red brome, salt grass

- Soil substrate (i.e. sand, gravel, silt, cobble, etc.): Sand/gravel/rock

- Site stability: Stable

- Topography and Site profile: Rises to ~ 600 feet above water level during an average water year.

Comments: _____

Fish and Wildlife Resources

- Specific location, size, reproductive success of Caspian tern colony (if known): No terns in 2002; terns present 1995 (90-95 pairs).

- Colonial Nesting Waterbirds:

<u>Species</u>	<u>Years of Occupancy</u>	<u>Colony Size</u>	<u>Distance from Caspian Terns</u>
White pelican		8-10,000	
Double-crested cormorant	1997	350	
California gull	1997	1,250	
Great blue heron	1997	80	
Caspian tern	1997	1	

- Prey Base (describe general type and distance from colony): Tui chub, carp (uncommon in lake), Lahotan cutthroat trout

State or Federal listed fish species potential prey? (Yes) or No
 Species: Cui-ui, Lahotan cutthroat trout

- State or Federal listed wildlife/plants species associated with site: None

Management issues: _____

- Predators:

Avian (species; known occupancy/use of site): Common ravens; California gull

Mammalian (species; known occupancy/access to site): None

- Disturbance (i.e. livestock, human, etc.): Nest site (island) is in restricted area.

Comments: Everything needed is available to Caspian terns except reliable forage base.

Site Management

- Management History (describe): No direct tern management; monitoring and working on keeping people off the island.

- Current Management (describe): No direct tern management; monitoring and working on keeping people off the island.

- Management Potential (describe): This site is occasionally used by nesting Caspian terns. Nesting habitat is available. However, Refuge biologist believe that the prey base is the limiting factor affecting use by Caspian terns. It is not practicable to manage for long-term use by Caspian terns due to fluctuating prey base levels.

Anaho National Wildlife Refuge, Pyramid Lake, Nevada



**CASPIAN TERN FEASIBILITY ASSESSMENT
FIELD FORM**

Date: June 18, 2002 Observer(s): B. Henry via phone call with J. Dillon

Site Name: Stillwater National Wildlife Refuge, Churchill County, Nevada

Ownership: Department of Interior, U.S. Fish and Wildlife Service

● Location:

- Nearest City/Town: Stillwater, Nevada
- Bay/Estuary/Waterbody: Stillwater Point Reservoir
- Coordinates: Latitude N 39° 31' 30" Longitude W 118° 31' 20"
- Township, Range, Section: _____
- GPS Coordinates: Northing: 4376097.5 Easting: 372029.7

● Size:

- Total area of island or site: 0.16 ha (0.43 a)
Area of current historical suitable habitat: 0.16 ha (0.43 a)
Area of potential habitat: An island 0.16 ha (0.43 a)

● Distance from East Sand Island: 870 km (540 mi)

● Aerial photo obtained? Y or (N) Date/Source of Aerial Photo: _____

Site Description

● Type of site: Island Peninsula Lakeshore Rooftop Other _____

● Natural or Manmade? ★ Site Photographs (Y) or N Number Taken: 1

● Structures present (i.e. roads, buildings, power lines, piers, etc.): None in historical or potential sites.

● Vegetative communities (i.e. forb, grass, shrub, tree): Salt cedar (around land edge of island),
Bull rushes (6-12 feet tall) ringed around island), center of island forb/grass component.

● Soil substrate (i.e. sand, gravel, silt, cobble, etc.): Silt and mud

● Site stability: Stable

● Topography and Site profile: Very gradual rise toward the center of the island.

Comments: Island (potential nest site) created when Stillwater Point Reservoir developed.

Fish and Wildlife Resources

- Specific location, size, reproductive success of Caspian tern colony (if known): No terns in 2002; terns present 1996 (4 pairs).

- Colonial Nesting Waterbirds:

<u>Species</u>	<u>Years of Occupancy</u>	<u>Colony Size</u>	<u>Distance from Caspian Terns</u>
White-faced Ibis	1994-2002	715	
Cattle egret	1994-2002	53	
Bl-Crwn night-heron	1994-2002	18	
Snowy egret	1994-2002	37	
Great egret	1994-2002	105	

- Prey Base (describe general type and distance from colony): During high water years, tui chub and carp populations greatly expand (primary prey species); Stillwater Point Reservoir also has mosquito fish and Lahotan redsides.

State or Federal listed fish species potential prey? Yes or ☒ No
Species: _____

- State or Federal listed wildlife/plants species associated with site: None

Management issues: _____

- Predators:

Avian (species; known occupancy/use of site): Common ravens; potentially California gull.
Mammalian (species; known occupancy/access to site): Coyotes

- Disturbance (i.e. livestock, human, etc.): Potential nest site (island) is in restricted area.

Comments: Caspian terns only present during high water years.

Site Management

- Management History (describe): No direct tern management; manage for fish populations in reservoir areas near Stillwater, Nevada.

- Current Management (describe): No direct tern management; manage for fish populations in reservoir areas near Stillwater, Nevada.

- Management Potential (describe): The Stillwater Point Reservoir area is used by Caspian terns only during years following a high snowpack in the Sierra Mountains. During other years, the water area does not promote fish production. Caspian tern nesting is dependant upon the climate which in turn controls the prey base availability.

Stillwater Point Reservoir, Stillwater, Nevada



**CASPIAN TERN FEASIBILITY ASSESSMENT
FIELD FORM**

Date: June 18, 2002 Observer(s): B. Henry via phone call with J. Dillon

Site Name: Carson Sink, Churchill County, Nevada

Ownership: Department of Interior, U.S. Fish and Wildlife Service

● Location:

- Nearest City/Town: Fallon, Nevada
- Bay/Estuary/Waterbody: Playa lake
- Coordinates: Latitude N 39° 49' 12" Longitude W 118° 28' 48"
- Township, Range, Section: _____
- GPS Coordinates: Northing: 4408827.0 Easting: 373333.72

● Size:

Total area of island or site: 3 islands - see comment section below

Area of current/historical suitable habitat: all 3 islands

Area of potential habitat: all 3 islands during high water levels

● Distance from East Sand Island: 845 km (525 mi)

● Aerial photo obtained? Y or (N) Date/Source of Aerial Photo: _____

Site Description

● Type of site: Island Peninsula Lakeshore Rooftop Other

● Natural or Manmade? ★ Site Photographs? (Y) or N Number Taken: 1

● Structures present (i.e. roads, buildings, power lines, piers, etc.)? Tern Island SE has some old pipe from an artesian well that sticks up above ground ~ 6-8 inches.

● Vegetative communities (i.e. forb, grass, shrub, tree): No vegetation present

● Soil substrate (i.e. sand, gravel, silt, cobble, etc.) Silt, sand

● Site stability: Fairly stable; accretion and decrement occur regularly during dry years.

● Topography and Site profile: All islands have a very gradual rise toward the center of the islands (slightly domed).

Comments: Tern Island SW - 0.94 ha (2.3 ac), Tern Island SE - 0.47 ha (1.2 a), Tern Island N - 0.42 ha (1.0 a); the Humboldt River and Carson River terminate in the Carson Sink during high water years (high snow pack), otherwise no water is present.

Fish and Wildlife Resources

- Specific location, size, reproductive success of Caspian tern colony (if known): No terns in 2002; terns present 1983-86 and 1998-1999
- Colonial Nesting Waterbirds:

<u>Species</u>	<u>Years of Occupancy</u>	<u>Colony Size</u>	<u>Distance from Caspian Terns</u>
None in 2002			
- Prey Base (describe general type and distance from colony): During high water years, tui chub and carp populations greatly expand (primary prey species).

State or Federal listed fish species potential prey? Yes or ☒ No
Species: _____
- State or Federal listed wildlife/plants species associated with site: None

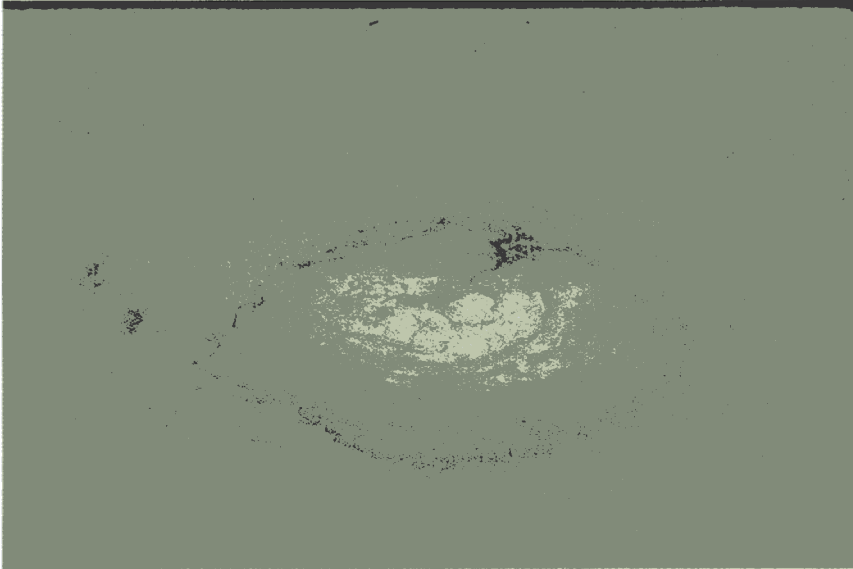
Management issues: _____
- Predators:
Avian (species; known occupancy/use of site): Common ravens; potentially California gull.
Mammalian (species; known occupancy/access to site): Coyotes in low water years.
- Disturbance (i.e. livestock, human, etc.): Naval Air Station (Bravo 20) - 10 to 12 miles north; heavily used bombing range.

Comments: Birds only present during high water years; associated with population explosion of tui chub and carp.

Site Management

- Management History (describe): No direct tern management; manage for fish populations in ponded areas near Stillwater, Nevada.
- Current Management (describe): No direct tern management; manage for fish populations in ponded areas near Stillwater, Nevada.
- Management Potential (describe): The Carson Sink area is used by Caspian terns only during years following a high snowpack in the Sierra Mountains. During other years, the nesting area is generally a dry alkaline flat. Caspian tern nesting is dependant upon the climate which in turn controls the prey base availability.

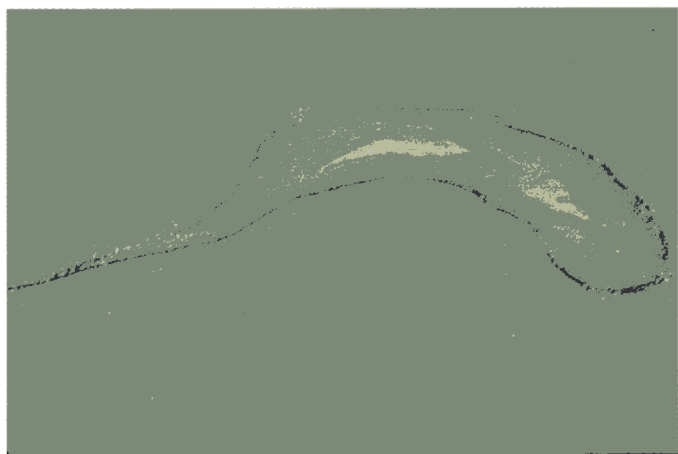
Carson Sink, Nevada



Tern Island Southeast



Tern Island North



Tern Island Southwest

**CASPIAN TERN SITE FEASIBILITY ASSESSMENT
FIELD FORM**

Date: N/A Observer(s): No site visit, information gathered via phone con with Chuck Trost

Site Name: Unnamed Island, Mormon Reservoir, Camas County, Idaho

Ownership: Irrigation District?

● Location:

- Nearest City/Town: Fairfield, Idaho
- Bay/Estuary/Waterbody: Mormon Reservoir
- Coordinates: Latitude N 43°16'00" Longitude W 114°50'00"
- Township, Range, Section: _____
- UTM Coordinates: Northing: 4792707.5 Easting: 675838.2 Zone 11T

● Size:

Total area of island or site: 0.8 ha (2 a)
Area of current historical suitable habitat: <.1 ha (600 sq. yd)
Area of potential habitat: <.1 ha (600 sq. yd)

- Distance from East Sand Island: ~1,086 km (~675 mi)
- Aerial photo obtained? Y or (N) Date/Source of Aerial Photo: _____

Site Description

- Type of site: (Island) Peninsula Lakeshore Rooftop Other _____

- (Natural) or Manmade? ★ Site Photographs? Y or (N) Number Taken: _____

- Structures present (i.e. roads, buildings, power lines, piers, etc.)? None

- Vegetative communities (i.e. forb, grass, shrub, tree): Low forbs/grass; some willow but not much can really grow because of the cormorant and gull nesting activity (most of vegetation is dead).

- Soil substrate (i.e. sand, gravel, silt, cobble, etc.): Rocky basalt

- Site stability: Water level affects whether the island becomes connected to the mainland.

- Topography and Site profile: Oblong island that rises to 20 feet at the southwest corner of the reservoir.

Comments: The island is located on the southwest edge of the reservoir. Most of the island is covered with the nesting gulls. Only a small area is available for nesting terns.

Fish and Wildlife Resources

- Specific location, size, reproductive success of Caspian tern colony (if known): 48 adults observed on June 12, 2002 (50% of which were laying down as if incubating).

- Colonial Nesting Waterbirds:

<u>Species</u>	<u>Years of Occupancy</u>	<u>Colony Size</u>	<u>Distance from Caspian Terns</u>
California gull	??	~10,000 pairs	??
Double-crested cormorant	??	~40 pairs	??
Black-crown night heron		No nesting confirmed	

- Prey Base (describe general type and distance from colony): Rainbow trout and Utah chub, carp if in small size class

State or Federal listed fish species potential prey? Yes or **(No)**
Species: _____

- State or Federal listed wildlife/plants species associated with site: None

Management issues None

- Predators:

Avian (species; known occupancy/use of site): Gulls, black-crowned night herons

Mammalian (species; known occupancy/access to site): None known if site remains as island (not connected to mainland).

- Disturbance (i.e. livestock, human, etc.): Not much because island is in shallow area of the reservoir. Camping is allowed on the opposite side of the reservoir but activity is minimal.

Site Management

- Management History (describe): No management.

- Current Management (describe): No management.

- Management Potential: The current available nesting habitat appears to be a limiting factor because this island is dominated by gulls. Nesting habitat is also limited by water levels in the reservoir. If water levels drop low enough to connect the island to the mainland, mammalian predation almost certainly wipes out the tern colony and prey resources are limited. There are no options for increasing tern nesting habitat at this site.

**CASPIAN TERN SITE FEASIBILITY ASSESSMENT
FIELD FORM**

Date: N/A Observer(s): No site visit, information gathered via phone con with Steve Bouffard

Site Name: Tern Island, Minidoka NWR, Cassia County, Idaho

Ownership: U.S. Fish and Wildlife

● Location:

- Nearest City/Town: Rupert, Idaho
- Bay/Estuary/Waterbody: Snake River, Lake Walcott
- Coordinates: Latitude N42°39.7' Longitude W 113°27.24'
- Township, Range, Section: _____
- UTM Coordinates: Northing: 4724859.5 Easting: 299169.97 Zone 12T

● Size:

Total area of island or site: < .1 ha (200 - 300 sq. ft)
Area of current historical suitable habitat: < .1 ha (200 - 300 sq. ft)
Area of potential habitat: < .1 ha (200 - 300 sq. ft)

- Distance from East Sand Island: ~ 910 km (~566 mi)
- Aerial photo obtained? Y or (N) Date/Source of Aerial Photo: _____

Site Description

- Type of site: Island Peninsula Lakeshore Rooftop Other _____

- Natural or Manmade? ★ Site Photographs? Y or (N) Number Taken: _____

- Structures present (i.e. roads, buildings, power lines, piers, etc.)? None

- Vegetative communities (i.e. forb, grass, shrub, tree): None

- Soil substrate (i.e. sand, gravel, silt, cobble, etc.) Rock

- Site stability: Stable

- Topography and Site profile: Low rock island no more than 3 feet above high water and covered with boulders.

Comments: No apparent nesting in 2002 because pelican and cormorant numbers have been increasing in the last 10 years. Since these species nest earlier than Caspian terns, their young roost on Tern Island and appear to overwhelm any nesting terns.

Fish and Wildlife Resources

- Specific location, size, reproductive success of Caspian tern colony (if known): Possibly 4-5 nests, but not closely monitored. Nesting has occurred in previous years.

- Colonial Nesting Waterbirds:

<u>Species</u>	<u>Years of Occupancy</u>	<u>Colony Size</u>	<u>Distance from Caspian Terns</u>
California gull		Roosting only	Immediately adjacent
Double-crested cormorant		Roosting only	Immediately adjacent
White pelican		Roosting only	Immediately adjacent

- Prey Base (describe general type and distance from colony): Sucker fish, small minnows, trout, carp

State or Federal listed fish species potential prey? Yes or **(No)**
 Species: _____

- State or Federal listed wildlife/plants species associated with site: Endangered Snail in reservoir
 Management issues: Water quality and an invasive snail species

- Predators:

Avian (species; known occupancy/use of site): Gulls

Mammalian (species; known occupancy/access to site): Since the island is small, there have not been many mammal species observed on the island. If any do occur, raccoons would be the most likely.

- Disturbance (i.e. livestock, human, etc.): No public access and boating activity is restricted to 0.25 mile from the island. Pelican numbers are increasing and roosting activity on the island appears to be disturbing to terns.

Comments: _____

Site Management

- Management History (describe): No management;

- Current Management (describe): No management;

- Management Potential: The current available nesting habitat is a limiting factor because the island is increasingly being used by roosting pelicans and cormorants. Adult Caspian terns are observed in the reservoir every summer in low numbers. Options for increasing tern nesting habitat include preventing pelicans and cormorants from using the island or creating new islands on rock outcroppings near the existing island.

**CASPIAN TERN SITE FEASIBILITY ASSESSMENT
FIELD FORM**

Date: N/A Observer(s): No site visit, information gathered via phone con with Chuck Trost

Site Name: Gull Island, American Falls Reservoir, Bingham County, Idaho

Ownership: ??

● Location:

- Nearest City/Town: Aberdeen, Idaho
- Bay/Estuary/Waterbody: American Falls Reservoir
- Coordinates: Latitude N 42°80'00" Longitude W 112°47'00"
- Township, Range, Section: _____
- UTM Coordinates: Northing: 4799376 Easting: 355430.3 Zone 12T

● Size:

Total area of island or site: 6 ha (~14 a)
Area of current/historical suitable habitat: unknown
Area of potential habitat: Unknown

- Distance from East Sand Island: ~1,158 km (~720 mi)
- Aerial photo obtained? Y or (N) Date/Source of Aerial Photo: _____

Site Description

● Type of site: Island Peninsula Lakeshore Rooftop Other _____

● (Natural) or Manmade? ★ Site Photographs? Y or (N) Number Taken _____

● Structures present (i.e. roads, buildings, power lines, piers, etc.)? None

● Vegetative communities (i.e. forb, grass, shrub, tree): Not much vegetation

● Soil substrate (i.e. sand, gravel, silt, cobble, etc.): Rocky basalt

● Site stability: Stable

● Topography and Site profile: Flat island

Comments: The island is located on the west edge of the reservoir, near The Big Hole.
Caspian terns have always been observed in the reservoir, but there has been no nesting
documented. 2002 is the first year of documented nesting activity.

Fish and Wildlife Resources

- Specific location, size, reproductive success of Caspian tern colony (if known): ~12 adults but reservoir went dry so nests probably failed.
- Colonial Nesting Waterbirds:

<u>Species</u>	<u>Years of Occupancy</u>	<u>Colony Size</u>	<u>Distance from Caspian Terns</u>
California gulls		??	
- Prey Base (describe general type and distance from colony): Rainbow trout and Utah chub, carp if in small size class.
State or Federal listed fish species potential prey? Yes or ☒ No
Species: _____
- State or Federal listed wildlife/plants species associated with site: None
Management issues: None
- Predators:
Avian (species; known occupancy/use of site): Gulls
Mammalian (species; known occupancy/access to site): None known if island is not connected to mainland from low water levels. When island is connected, mink is a big predator.
- Disturbance (i.e. livestock, human, etc.): None known

Comments: _____

Site Management

- Management History (describe): No management.
- Current Management (describe): No management
- Management Potential: The current available nesting habitat appears to be limited by water levels in the reservoir. If water levels drop low enough to connect the island to the mainland, mammalian predation almost certainly wipes out the tern colony and prey resources are limited. There are no options for increasing tern nesting habitat at this site.

**CASPIAN TERN SITE FEASIBILITY ASSESSMENT
FIELD FORM**

Date: N/A Observer(s): No site visit, information gathered via phone con with Chuck Trost

Site Name: Gull Island, Blackfoot Reservoir, Caribou County, Idaho

Ownership: ??

● Location:

- Nearest City/Town: Henry, Idaho
- Bay/Estuary/Waterbody: Blackfoot Reservoir
- Coordinates: Latitude N 42°65'00" Longitude W 111°68'00"
- Township, Range, Section: _____
- UTM Coordinates: Northing: 4770379.5 Easting: 434881.12 Zone 12T

● Size:

Total area of island or site: 0.6 ha (~1.5 a)
Area of current/historical suitable habitat: < .1 ha (400 sq. m)
Area of potential habitat < .1 ha (400 sq. m)

● Distance from East Sand Island: ~1,247 km (~775 mi)

● Aerial photo obtained? Y or (N) Date/Source of Aerial Photo: _____

Site Description

● Type of site: Island Peninsula Lakeshore Rooftop Other _____

● Natural or Manmade? ★ Site Photographs? Y or (N) Number Taken: _____

● Structures present (i.e. roads, buildings, power lines, piers, etc.)? A single goose nest platform

● Vegetative communities (i.e. forb, grass, shrub, tree): Not much vegetation because of heavy pelican, gull, and cormorant use. Choke cherry and sage can be found along the edge.

● Soil substrate (i.e. sand, gravel, silt, cobble, etc.): Rocky basalt

● Site stability: Stable

● Topography and Site profile: Large dome-shaped island rising to 150 feet high and isolated by deep water. Northern end is flat and shallow (area where terns nest).

Comments: The island is located approximately 1 mile from the western shoreline.

Fish and Wildlife Resources

- Specific location, size, reproductive success of Caspian tern colony (if known): ~90 adults
(48 were sitting as if incubating); young was observed on June 27 (half grown).

- Colonial Nesting Waterbirds:

<u>Species</u>	<u>Years of Occupancy</u>	<u>Colony Size</u>	<u>Distance from Caspian Terns</u>
California gulls		~10,000 nests	
Am. white pelicans		~100 nests	
Ring-billed gulls		nesting?	
Great blue heron		nesting?	
Black-crowned night heron		nesting?	
Double-crested cormorant		nesting?	

- Prey Base (describe general type and distance from colony): Rainbow trout and Utah chub, carp if in small size class

State or Federal listed fish species potential prey? Yes or No

Species: _____

- State or Federal listed wildlife/plants species associated with site: None

Management issues: None

- Predators:

Avian (species; known occupancy/use of site): Gulls, black-crowned night heron, great blue heron

Mammalian (species; known occupancy/access to site): None known if island is not connected to mainland from low water levels. If island becomes connected, coyotes, raccoons, and mink are potential predators.

- Disturbance (i.e. livestock, human, etc.): In the past, people have landed on the island. Currently, human recreational activity is low in the reservoir.

Comments: _____

Site Management

- Management History (describe): No management.

- Current Management (describe): No management.

- Management Potential: The current available nesting habitat appears to be limited by water levels in the reservoir. If water levels drop low enough to connect the island to the mainland, mammalian predation almost certainly wipes out the tern colony and prey resources are limited. There are no options for increasing tern nesting habitat at this site.

**CASPIAN TERN SITE FEASIBILITY ASSESSMENT
FIELD FORM**

Date: N/A Observer(s): No site visit, information gathered via phone con with Dick Sjostrom

Site Name: Unnamed Island, Bear Lake NWR, Bear Lake County, Idaho

Ownership: U.S. Fish and Wildlife

● Location:

- Nearest City/Town: Montpelier, Idaho
- Bay/Estuary/Waterbody: Mud Lake, north of Bear Lake
- Coordinates: Latitude N 42°12'00" Longitude W 111°20'20"
- Township, Range, Section: _____
- UTM Coordinates: Northing: 4672038 Easting: 472021.97 Zone 12T

● Size:

Total area of island or site: < .1 ha (200 - 300 sq. ft)

Area of current historical suitable habitat: < .1 ha (200 - 300 sq. ft)

Area of potential habitat: < .1 ha (200 - 300 sq. ft)

● Distance from East Sand Island: ~1,086 km (~675 mi)

● Aerial photo obtained? Y or (N) Date/Source of Aerial Photo: _____

Site Description

● Type of site: Island Peninsula Lakeshore Rooftop Other _____

● Natural or Manmade? ★ Site Photographs? Y or (N) Number Taken: _____

● Structures present (i.e. roads, buildings, power lines, piers, etc.)? None

● Vegetative communities (i.e. forb, grass, shrub, tree): "Weed species," scattered weeds and not much vegetation at all.

● Soil substrate (i.e. sand, gravel, silt, cobble, etc. Alkaline silt, soil

● Site stability: Stable in size and shape.

● Topography and Site profile: flat, bare oval shaped island.

Comments: No apparent nesting in 2002. Water levels are relatively stable in the lake.

Fish and Wildlife Resources

- Specific location, size, reproductive success of Caspian tern colony (if known): None known in 2002, highest count of 12-14 pairs in last 4-5 years.

- Colonial Nesting Waterbirds:

<u>Species</u>	<u>Years of Occupancy</u>	<u>Colony Size</u>	<u>Distance from Caspian Terns</u>
California gull	"decades"	4-500 ('02)	??
Double-crested cormorant	"decades"	60 adults ('95)	??

- Prey Base (describe general type and distance from colony): Young carp, cutthroat trout, stunted birch and sunfish. Endemic fish species (Bonneville white fish and Bonneville cisco) in Bear Lake, but terns not believed to feed there.

State or Federal listed fish species potential prey? Yes or **(No)**

Species: _____

- State or Federal listed wildlife/plants species associated with site: None

Management issues: None

- Predators:

Avian (species; known occupancy/use of site): Gulls

Mammalian (species; known occupancy/access to site): Possibly mink or weasel, but they have to swim to the island. Other mammals present in the area include beaver, fox, coyote, raccoons, and skunks. There has been no direct evidence of predation documented and it appears as if the gulls are able to chase predators off the island.

- Disturbance (i.e. livestock, human, etc.): None because island is within the refuge boundary and there is no public access.

Comments: _____

Site Management

- Management History (describe): Not much done; some logs were placed on the island to provide shade or roosting surface to attract pelicans. This was not successful as pelicans have not used the island.
- Current Management (describe): No management.
- Management Potential: The current available nesting habitat appears to be a limiting factor because this small island is also used by large numbers of gulls and cormorants. There are no options for increasing tern nesting habitat.